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Institutional Investing in Infrastructure

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Inside

Water Works

Demand Grows for Clean and Safe Water

by Ryan Garner

Water flows uphill toward money. That phrase was often heard in the American West during the 19th century, when opportunistic settlers headed west in search of undeveloped land, and irrigation played a major role in the cultivation of the region. Today, many investors are looking to water infrastructure as a profitable endeavor, tackling social, political and environmental challenges to meet the public demand for clean, safe water systems.

While high-quality drinking water and wastewater systems are essential to public health, business and quality of life around the world, many developing countries lack reliable water and wastewater infrastructure. Worldwide, approximately 1.1 billion people lack access to clean drinking water, according to the United Nations. The U.N. estimates that by 2030, as many as 4 billion people will not have enough water for their basic needs — sanitation, cooking and drinking.

Meanwhile, developed countries have to deal with the repair and rehabilitation of water infrastructure in order to protect public health and safety and to maintain environmental standards. In the United States, a neglected infrastructure and regional droughts are creating water shortages. According to the American Society of Civil Engineers, water infrastructure in the United States will need more than $1 trillion in repairs by 2025. Many older water systems lose up to 30 percent of their water due to cracked and leaking piping.

As demand for water grows and the finite supply of this crucial resource dwindles, investors will face tough new questions about sustainability and which companies are best positioned to address the future. To provide enough water for all uses through 2030, the U.N. estimates the world will need to invest as much as $1 trillion per year on applying existing technologies for conserving water, maintaining and replacing water-related infrastructure, and constructing sanitation systems. While China has only 8 percent of all the freshwater in the world, it is home to 22 percent of the world's population. In addition, analysts expect India's demand for urban water to double by 2025.

Two main investment models exist in the water sector: the French model of delegated management, where the ownership is in public hands and the management is a mix of public and private systems, and the English model of full privatization, where ownership and management are private. The French model has been exported in various forms in developed and developing countries, while the English model occurs mainly in England and Wales.

PUBLIC DEMAND

Most Americans understand the need for federal investment in water infrastructure. According to a recent poll conducted by Republican pollster Frank Luntz, 71 percent of Americans believe that clean and safe water is a national issue that requires dedicated national funding, establishing sewage and wastewater treatment systems to guarantee clean and safe water for Americans. During the next 20 years, the U.S. Conference of Mayors projects infrastructure spending of $1.442 trillion on sewer and water infrastructure projects.

An estimated $96 billion in stimulus spending directed at water infrastructure worldwide will be a boon for water-related companies in the next two years.

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PURPOSE

To provide tax-exempt investors with decision-making tools and information on the people, issues, ideas and events driving the institutionalization and globalization of the infrastructure asset class.

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William Brennan, co-manager of the Kinetics Water Infrastructure Advantaged Fund, estimates that $13.9 billion of the Obama Administration's stimulus package has been put toward overhauling water infrastructure and other water-related activities. However, the United States is roughly $600 billion behind in revamping water pipes and sanitation systems, and Brennan estimates that 70 percent of the 2 million miles of underground water pipes in the United States are beyond their useful life and need to be replaced.

"There is a lot of stimulus spending lined up with regard to pipes, pumps and desalinization," says Brennan, who is also the president and managing partner of AquaTerra Asset Management. "It will have an impact, but we believe it is just a Band-Aid when major surgery is required. The federal stimulus was meant to spur job growth, but it has really failed when it comes to water, and I think you'll see more and more dollars allotted to rebuilding infrastructure as we move forward."

According to the 2002 *EPA Clean Water and Drinking Water Infrastructure Gap Analysis,* 90 percent of funding for water infrastructure projects comes from the local level, primarily through water rates, bonds and sales tax. In July 2009, a bill was introduced to the U.S. Congress that would create a water trust fund for investing in America's drinking water and sewage treatment systems. The Water Protection & Reinvestment Act would create a $10 billion annual fund to repair decaying pipes and sewer systems that threaten public health, the environment and overall security.

"This is a way to offset what we see coming, which is 20 percent-plus increases year-over-year for the next 10 years in order to rebuild the infrastructure from where we are right now," says Brennan. "Water quality has declined over the past 50 years, with manufacturing discharge going into rivers and surface water, and bigger concentrations of prescription pharmaceuticals being discharged in wastewater. That will drive the need for wastewater treatment and other water-purification services."

The Water Protection & Reinvestment Act could soon join the Clean Water State Revolving Fund and Drinking Water State Revolving Fund, which will provide $38.5 billion for Environmental Protection Agency water infrastructure programs during the next five years. A House version called the Water Quality Investment Act of 2009, which will reauthorize the Clean Water State Revolving Fund at $13.8 billion over five years, was passed in March.

GOING PRIVATE

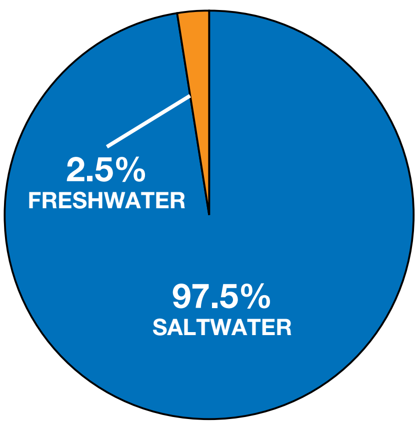
While public investment makes up the bulk of water infrastructure spending worldwide, the private sector operates only a small amount of the water supply. Of the total world population of 6 billion, private companies serve approximately 5 percent. Of those 290 million people, 126 million reside in Europe, 72 million in Asia and Oceania, 48 million in North America, 21 million in South America and 22 million in other countries.

Private involvement remains limited but is expected to increase during the next decade. Privately owned water systems are located primarily in small communities, whereas the more common approach to privatization in larger cities is operating contracts, which increased during the 1990s. In the United States, there are approximately 50,000 community water systems. Of these, 43 percent are publicly owned, 33 percent privately owned, and 24 percent are classified as ancillary systems (systems serving very small communities such as trailer parks). However, because most private systems are relatively small, public water systems serve 86 percent of American households, while private systems supply only 13 percent.

According to Luntz's poll, the American public is skeptical about private investment in essential water resources, and 91 percent of Americans agree that, "if, as a country, we are willing to invest over $30 billion a year on highways and more than $8 billion a year on our airways, we certainly should be willing to make the necessary investments in our nation's rivers, lakes and oceans."

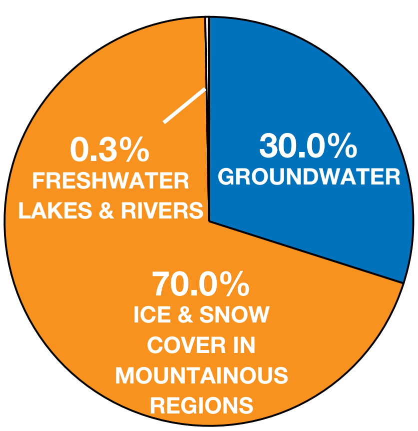
However, the private sector is touted as a way of bringing innovative approaches, providing efficient management and cutting the cost of public subsidies or redirecting them to the poor. This change in public policy has occurred worldwide and for all infrastructure sectors. Privatization and decentralization have become the main reform policies of the major international organizations (World Bank, International Monetary Fund, Organization for Economic Cooperation and Development).

Total World Water



Source: United Nations

Breakdown of Freshwater Resources



Source: United Nations

In most industrialized countries, decentralization policies and decline in government subsidies are occurring at a time when infrastructure needs to be renewed, whereas for developing countries and transitional economies the main challenge is investment in new infrastructure. This financial need to maintain and improve infrastructure and to construct new works explains why private sector involvement is increasingly sought-after in the water sector.

To that end, private activity bonds and public-private partnerships are becoming more common, as well as regulatory changes that would make funds available to privately owned treatment works. These fundraising strategies all facilitate privatization of publicly owned water utilities. U.S.-based water funds are currently much smaller than their counterparts in Europe. So far, Americans haven't experienced water shortages to the same degree as people in other parts of the world, although Brennan expects a surge in water investment to begin during the next three years.

"Climate change and drought are having a major impact on water resources and more people are moving to warmer climates, meaning water-stress areas in California, Texas and Florida are real and are only getting worse," Brennan laments.

NATURAL RESOURCE

Investors are realizing the need for sustainable water infrastructure, along with the attractive investment opportunities. Utilities are a good way to capitalize on the global growth prospects of water because of the need to replace aging infrastructure and build new systems in emerging markets, as well as the need to comply with tighter environmental standards.

In September 2008, Calvert Investments launched the Calvert Global Water Fund, aimed at investing in utility, infrastructure and technology companies active in managing water resources. The fund invested in water-related service companies providing water treatment, filtration equipment or environmental controls; manufac-

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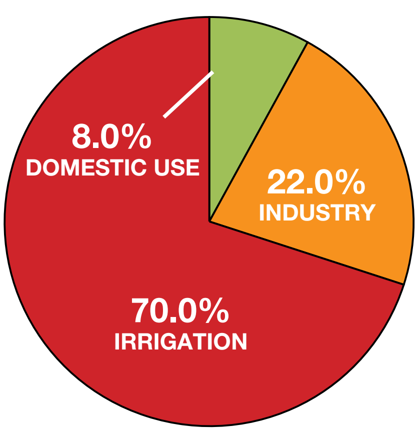
turers of water-related equipment; engineering; providers of water and wastewater products; and services and water utilities.

"Demand for water is rising around the world with both population growth and development," says Reggie Stanley, senior vice president and chief marketing officer at Calvert. "Mutual funds and other investment vehicles are an important way to bring additional capital to the water sector. Currently, worldwide investments in water-related mutual funds and exchange-traded funds are over $13 billion. In the face of this increasing demand for water investment, there is growing awareness and interest from institutions and individuals in the investment and policy implications."

Water is an irreplaceable commodity with stable demand, and it is one of the last true monopolies for savvy investors. Demand for drinking water is static and residential consumption is not typically tied to economic activity, and with large infrastructure investment needs, economic indicators do not drive capital expenditures. In addition, governments are changing regulations and allowing greater private investment.

In 2006, Sydney, Australia, moved a step closer toward retail competition in its water market, following the introduction of the Water Industry Competition Act 2006. That Act was designed to encourage water recycling and improve water security by allowing for private sector investment in the water and wastewater industries. It established a framework for private sector players to access water and wastewater infrastructure while giving them powers, protection and restrictions similar to those enjoyed by public authorities.

Breakdown of Freshwater Use



Source: United Nations

SLIPPERY SLOPE

However, new entrants attempting to gain third-party access to existing urban infrastructure face problems obtaining accurate information about the value and condition of water supply and sewerage assets, which are generally located beneath the surface. With 70 percent to 80 percent of water and wastewater assets underground, obtaining accurate information about them can be costly, and there is generally a lack of reliable information about the condition of existing infrastructure. This can discourage some potential investors or become a source of conflict.

Another practical impediment is the high cost of establishing infrastructure and transmitting water and wastewater services, which means that there is often only one supply network in each location. This represents an obvious constraint to the creation of competitive water markets, and highlights the difficulties in maintaining a successful interface between the public and private sectors.

In addition, private companies face costs that public utilities do not. Besides making a profit, they must pay for contract and contract administration costs, third-party auditing, and taxes. As a result, private financing for infrastructure investment is more expensive than public investment. Relying on private capital raises the cost of infrastructure investment, without bringing in any new capital.

Many communities across North America also have found that the private sector has not solved their water infrastructure needs. In some cases, private companies have failed to deliver on promised investment, and allocation of capital in communities with privatized water is based on a strategy that values short-term profit rather than long-term sustainability of infrastructure.

"There is concern that some of these companies need an unacceptable amount of leverage to deliver the kind of returns that their investors expect — and in a shorter amount of time compared to the typical utility investment cycle," says Nicholas DeBenedictis, Aqua America chairman and CEO. "I am very skeptical about putting water resources into the hands of financial entities that are highly leveraged and typically bring a short-term investment horizon."

That pursuit of profit rather than the best interest of the public is a concern surrounding most infrastructure projects, but it's even more applicable when dealing with water infrastructure. Many believe that water is a fundamental right for people around the world, rather than a method to generate profits. In addition, investors need a long-term approach to water infrastructure, thinking in decades rather than years.

"The water business has one of the longest capital recovery periods of any industry, and investments made in infrastructure today will not pay returns for decades to come," says DeBenedictis. "Financial participation in the sector requires a long-term commitment to the consumers and communities."

Many objectives have to be considered in the water sector: protection of public health and the environment, accountability, transparency, participation, access for the poor, equity, efficiency, and effectiveness. What is the best way to balance all these objectives when the interests of stakeholders do not always converge? Despite the risks, water infrastructure investment should continue to grow as the private sector looks to address the needs of developing countries, while servicing established systems in developed countries. ❖

Ryan Garner is editor of the ***Institutional Real Estate Newsline.***

Investing for America's Future

If it is true that a civilization is measured by the quality of its roads, then we soon face a reckoning. From the Erie Canal and the Transcontinental Railroad to the New Deal, the Federal Highway Act and the Internet, the chapters of our American success story have always been written in stone and mortar, iron and steel, granite and fiber-optic cable. And if we continue to perilously ignore our infrastructure base, we risk a day — not so long in the future — when America will wake up to find itself a second-rate economic power.

Simply put, our public infrastructure is falling apart. It can barely accommodate our current transportation, health, telecommunications and energy needs, let alone the growing demands of future generations. The American Society of Civil Engineers estimates that we need to spend $2.2 trillion during the next five years just to bring our infrastructure up to an adequate condition. And according to the Texas Transportation Institute, traffic congestion creates an $87.2 billion annual drain on our economy in lost productivity and wasted fuel.

But, in this time of crisis, we need to keep in mind the long-term conditions for continued American prosperity. And in that regard, our current problems are compounded by the frightful state of our crumbling national infrastructure. As investment banker Felix Rohaytn noted in his book *Bold Endeavors,* "American history shows that economic growth, the creation of wealth, employment and opportunity, are all built on the platform of investment ... innovative public investment." And in America today, that key platform for economic growth is in dangerous disrepair.

If only our infrastructure problems were restricted to our roads and highways. Too many American cities now rely on a decaying grid of old and overworked pipes that verge on collapse. Baltimore, for example, has suffered more than 5,000 water pipe breaks in just the last four years. Meanwhile, EPA estimates suggest that more than $183 billion is needed for installation and maintenance of safe drinking water systems through 2022.

And when we consider the requisite infrastructure base of the emerging green and information economies, we fare little better. Electric utilities will need to invest an annual average of $28 billion for generation, $12 billion for transmission, and $34 billion for distribution of electricity to keep pace with demand. And according to the Organization for Economic Cooperation and Development (OECD), the United States ranks 15th in the world in access to broadband, the conduit by which commerce increasingly flows. Fifteenth! And if we are not careful, we could fall even lower.

> Right now in Washington, the debilitating effects of this extended economic retrenchment are on everyone's minds, and for good reason. The depth and severity of this "Great Recession" has been frightening.

Our friends and competitors around the world understand the critical importance of infrastructure to economic growth, and they have invested accordingly. China puts 9 percent of its GDP into infrastructure, India 5 percent and rising. In America, we spend less than 2 percent of GDP.

For these reasons and many more, we must reprioritize public investment and begin the rebuilding of our national infrastructure. For every $1 billion spent on transportation projects, 47,500 jobs that cannot be outsourced are created and $6.2 billion in economic activity is generated. So, thinking long-term about our infrastructure problem would pay very real short-term dividends for our labor market troubles as well.

We need a 21st century national infrastructure policy that makes us more energy efficient and reduces our reliance on foreign oil. We need smart power grids. We need to design buildings that need less energy, make alternative fuels more accessible, diversify energy sources and make public transportation systems more efficient, all of which will create new markets for new jobs.

And, to do so, we must find a better way to leverage the hundreds of billions of dollars in private capital out there that are available for public investment. Ultimately, existing federal programs cannot meet our infrastructure needs, particularly given the dismal current condition of our infrastructure networks. We will need more involvement from investment firms, pension funds and the like to ensure long-term, sustainable job creation and economic growth.

That is why I, along with Reps. Keith Ellison, Steve Israel and Anthony Weiner, have introduced the National Infrastructure Development Bank Act. The bill establishes a development bank for America — a new independent entity that can objectively consider public investment projects and provide financing for those of regional or national significance with clear economic, environmental and social benefits.

The development bank would issue 30-plus-year "public benefit bonds" and provide direct subsidies to cities, states or private companies for infrastructure projects from amounts made available from the issuance of these bonds. Funding from the bank would supplement, not supplant, current financing mechanisms. The bank would be capitalized with $250 billion — $25 billion through Congressional appropriations, allowing the Treasury Secretary to purchase shares in the Bank, and the rest subject to the call of the Secretary if needed to meet bank obligations. And with a conservative leverage ratio of 2.5:1, the Bank would have the ability to issue up to

$625 billion in bonds, providing for an unprecedented level of infrastructure investment across the country.

Ultimately, the development bank would help to depoliticize infrastructure investment, while creating new opportunities to directly support and accelerate the kind of projects that will make a significant and long-term impact. In other words, it would make it much easier for states and municipalities to get the important projects they need off the ground and completed more promptly, without them getting tied up forever in — or drastically altered by — Congress.

The bank would include an independent and objective board of directors to make final infrastructure financing determinations and an executive committee to handle day-to-day operations. A risk management committee would be charged with, among other things, ensuring a diversity of projects by region and type. And an audit committee, with outside accountants, would maintain strict transparency and recording requirements to make sure the bank is properly regulated.

We have seen infrastructure banks work. The European Investment Bank has been helping to fund infrastructure projects for a half-century. And with a team of investment experts working on financing a wide range of projects, California's Infrastructure and Economic Development Bank has appropriated less than $180 million from the General Fund and has loaned, issued bonds for or otherwise directed nearly $30 billion toward various public projects.

Right now in Washington, the debilitating effects of this extended economic retrenchment are on everyone's minds, and for good reason. The depth and severity of this "Great Recession" have been frightening. We have lost an estimated 8 million jobs since the recession began in 2007, the longest stretch of job losses since the Great Depression. And the unemployment rate has reached double-digits for the first time in 26 years, with some economists warning that the labor markets will not return to normal until 2013 or 2014.

One might ask: Why do we need such federal bonds if we already have municipal bonds? But, municipal finance has limitations. Due to their limited size and liquidity, municipal bonds are disproportionately held by individual investors rather than by institutions. Meanwhile, large institutions, particularly central banks, prefer to focus on bond issues of up to $1 billion. Foreign central banks, which are unable to take advantage of tax-based incentives, have large sums to invest and prefer to buy government bonds.

And U.S. institutions also — most notably pension funds — also would similarly prefer larger bond issues. What has been needed is a mechanism here at home that can channel this large pool of capital available on the global market and create a U.S. infrastructure development market that will help build the future: high-speed rail, a smart grid, clean water systems and broadband. The National Infrastructure Development Bank is that mechanism.

In fact, we have seen large pools of money in recent years put into funds to invest solely in infrastructure. Goldman Sachs Infrastructure Investment Group, for example, raised its first infrastructure fund in 2006 with more than $6.5 billion in committed capital. And the California Public Employees' Retirement System, the nation's largest public pension fund, announced last year that it would allocate up to 3 percent of its $200 billion of market assets to infrastructure through the year 2010. In making this decision, they noted — correctly — that other pension funds in Canada, Australia and Europe have been successfully investing in infrastructure projects, and that the share of private capital in new infrastructure developments is increasing.

Granted, the financial crisis has taken a major toll on this burgeoning investment sector, as it has on so much else. According to a recent Preqin research report, infrastructure funds have raised $6.2 billion this year, considerably less than the $20.3 billion raised by this point in 2008. But the same survey shows that 76 percent of investors intend to continue investing in infrastructure funds over the long term.

This is still a relatively young asset class, and investors recognize the role government will play going forward. Many anticipate a large boom in investment opportunities as governments deal with fiscal problems in the aftermath of the financial and economic crises. So the money will be out there, even despite the current crisis, and we need to make sure it gets put to work for America. The bank will make it happen.

The bank has 44 cosponsors in the House and support from many groups in the business and labor communities, including the American Society of Civil Engineers, National Construction Alliance II, Building and Trades (AFL-CIO), the Chamber of Commerce, PolicyLink, SEIU, the Association of General Contractors, Transportation for America, and the National Governors Association, as well as Mayor Bloomberg and Governors Rendell and Schwarzenegger's Build America's Future.

If done right, the [infrastructure] bank is exactly the type of bold, outside-the-box thinking we need right now to foster long-term economic growth, create jobs and generate a recovery that will last years, if not decades to come. In short, we need to think bigger.

The concept also enjoys the support of President Obama and many in Congress. In fact, the bank has already been budgeted in the President's budget ($5 billion annually for five years) and the House budget ($2 billion in fiscal year 2010 and $5 billion in fiscal year 2011).

If done right, the bank is exactly the type of bold, outside-the-box thinking we need right now to foster long-term economic growth, create jobs and generate a recovery that will last years, if not decades, to come. In short, we need to think bigger. We cannot afford to ignore our infrastructure any longer. ❖

Rep. Rosa DeLauro is the congresswoman representing the third district of Connecticut.

COMMITMENTS

CalPERS Commits $300 Million to Alinda Infrastructure Fund

The $198.9 billion California Public Employees' Retirement System (CalPERS) has committed $300 million to Alinda Capital Partners' Infrastructure Fund II. The fund will invest in public infrastructure, energy and industrial infrastructure primarily in the United States and Europe. CalPERS made a $100 million investment in Alinda Infrastructure Fund I in May 2007, but the pension fund placed a fair market value of $74 million on this investment by the end of September 2009.

CalPERS has now committed $700 million to infrastructure investments. The retirement system plans to invest up to 3 percent of its total plan assets in infrastructure through a combination of commingled funds and separate account relationships by the end of 2010.

SEARCHES

Kent County Launches Manager Search

The £2.5 billion Kent County Council Superannuation Fund, a U.K.–based pension plan, has launched a search for an infrastructure manager to invest up to £50 million ($81 million). The fund will consider direct and fund-of-funds investments.

Proposals are due Jan. 29, and additional information is available from Kent's head of financial services, Nick Vickers (nick.vickers@kent.gov.uk). Consultant Hymans Roberts is assisting with the search.

CalPERS Selects Meketa as Infrastructure Consultant

The $198.9 billion California Public Employees' Retirement System (CalPERS) has selected Meketa Investment Group as its first lead consultant for the pension fund's infrastructure program. CalPERS heard presentations on Nov. 23 from Meketa and three other finalists: Pension Consulting Alliance, R.V. Kuhns & Associates and Wilshire Consulting.

"Meketa has the depth and breadth of market experience in the infrastructure field to help us develop our program," says CalPERS board president Rob Feckner. "This firm has evaluated well over 100 infrastructure funds and has a lot of insight to offer us about strategy and how we can best assess investment opportunities."

Meketa, founded in 1974 and based in Westwood, Mass., provides consulting services for approximately $70 billion in institutional assets. Meketa has been evaluating investment strategies for transportation, ports, energy, water, communication and other infrastructure projects since 2006.

INDUSTRY PROFILE

TIFIA (Transportation Infrastructure Finance and Innovation Act) Program

Contact: Duane Callendar, director, (202) 366-9644, http://tifia.fhwa.dot.gov/

Headquarters: Washington, D.C.

Snapshot: The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) established a federal credit program for eligible transportation projects of national or regional significance under which the U.S. Department of Transportation (DOT) may provide three forms of credit assistance — secured (direct) loans, loan guarantees, and standby lines of credit. The program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system. The DOT awards credit assistance to eligible applicants, which include state departments of transportation, transit operators, special authorities, local governments and private entities. Any type of project that is eligible for federal assistance through existing surface transportation programs (highway projects and transit capital projects) is eligible for the TIFIA credit program. In addition, the following types of projects are eligible: international bridges and tunnels; inter-city passenger bus and rail facilities and vehicles (including Amtrak and magnetic levitation systems), and publicly owned freight rail facilities; private facilities providing public benefit for highway users; intermodal freight transfer facilities, projects that provide access to such facilities, and service improvements on or adjacent to the National Highway System; and projects located within the boundary of a port terminal.

Total TIFIA Assistance: $6.9 billion

Total Project Investment: $25.7 billion

Notable Transactions:

1) Central Texas Turnpike: project cost $3.3 billion; $900 million TIFIA direct loan backed by user charges

2) I-595 Corridor Roadway improvements: project cost $1.8 billion; $603 million TIFIA direct loan backed by availability payments

3) Intercounty Connector (Montgomery County/Prince George's County, Md.): project cost $2.6 billion; $516 million TIFIA direct loan backed by user charges

4) Capital Beltway/I-495 HOT Lanes: project cost $1.9 billion; $589 million TIFIA direct loan backed by user charges

Investment News

OFFERINGS

Macquarie Launches $1 Billion Korean Infrastructure Fund

Macquarie Group has launched an infrastructure fund targeting $1 billion in equity commitments. Macquarie Korea Opportunities Fund II will primarily invest in operating assets including power and water treatment plants. The fund also will make green investments. Macquarie has marketed the new fund to Korean and Japanese investors and is planning to open it up to global investors in January.

Macquarie Korea Opportunities Fund I, the fund's predecessor, raised $1 billion in 2005. It has invested in Korea's ports, city gas and cogeneration power plants. The fund has given investors an average annual cash return of approximately 8 percent.

In 2002, Macquarie teamed up with Korean financial conglomerate Shinhan Financial Group to set up Macquarie Korea Infrastructure Fund. The fund invested in concession companies that develop or operate infrastructure assets such as airports, toll roads and subways in Korea.

CPG, Tianjin Launch $500 Million Infrastructure Fund

CPG Capital Partners, an investment banking and funds management firm based in Singapore, has teamed with the government of Tianjin, China, to set up the CPG Tianjin Infrastructure Fund. The fund aims to raise $500 million in equity by February 2010. CPG and the Tianjin government will each commit $50 million to the private equity fund while other domestic investors will commit between 10 percent and 20 percent of the targeted fund size.

CPG Tianjin Infrastructure Fund will focus on acquiring toll roads in Tianjin and nearby Tangshan, China, in addition to developing one greenfield infrastructure project. The firm is looking to invest approximately $100 million in equity for each toll road and between $100 million and $200 million for the greenfield infrastructure project.

CPG aims to replicate the Tianjin partnership with five to six governments over the next five years. The firm typically invests in government-backed infrastructure and real estate assets and has offices in Beijing, Shanghai, Singapore and Sydney.

INVESTMENTS

CIC Invests $1.6 Billion in Power Sector

China Investment Corp. (CIC), the Chinese sovereign wealth fund, has agreed to invest $1.58 billion in Virginia-based AES Corp., which targets the power sector, including renewable energy and emerging markets.

CIC will acquire 125.5 million shares of AES stock for $12.6 per share, representing an approximately 15 percent equity interest in the company. According to the agreement, CIC will nominate one director to the AES board.

In addition, CIC intends to raise an additional $571 million of equity for an approximate 35 percent interest in the AES wind generation business.

AES owns and operates a diverse portfolio of power generation and distribution businesses in 29 countries. More than two-thirds of the firm's revenue is generated outside of the United States.

Blackstone to Invest in Indian Rail Logistics

The Blackstone Group will invest up to 3 billion rupees ($65 million) in Gateway Rail Freight (GRF), an Indian rail logistics firm, which will represent an approximate 37.27 percent to 49.90 percent ownership of GRF's share capital.

GRF transports goods such as steel, chemicals, paper, meat and grains through containers on railroads. Eighty percent of the company's business comes from domestic trade while the remainder comes from overseas trade.

The firm operates rail-linked terminals with customs facilities and provides rail and transport services. GRF owns and operates 19 container trains and roughly 235 road trailers throughout India. The company currently has terminals in Ludhiana, Mumbai and Garhi, and intended to start a fourth rail-linked cargo terminal by the end of 2009 in the city of Faridabad.

This investment is Blackstone's second in the Indian logistics sector, reports *PEI Asia*. Blackstone has formerly invested in Allcargo Global Logistics, a private sector logistics operator whose operations include container freight stations, inland container depots and less-than-container-load consolidation. The firm first invested in the company in February 2008 and then made a follow-on investment in September 2009.

PEOPLE

❑ **Donald Holcher** has been appointed managing director of alternative investments and real estate with the San Francisco City and County Employees' Retirement System. It is a new position. Holcher previously managed the retirement system's real estate portfolio for the past 10 years.

❑ **Varun Bajpai** has been appointed CEO of SBI Macquarie Infrastructure Management, which will manage the SBI Macquarie Infrastructure Trust, a domestic fund that will target infrastructure projects and companies in India. The appointment was made by the State Bank of India (SBI) and Macquarie Capital, which also have named **Praveen Gupta** as deputy CEO of their joint venture management company. Bajpai is a senior managing director at Macquarie Capital. Before assuming this role, he led the establishment of Macquarie's business in India during the past five years as head of the corporate advisory team. He also has worked for Deutsche Bank and Kotak Mahindra in the past. Gupta is a general manager with SBI with more than 25 years of experience in banking. ❖

Navigating the U.S. P3 Market

A Guide to the "Jurisdictions of Opportunity"

Private investors seeking public-private partnership (P3) deals in the United States often can be stymied by the myriad rules and regulations administered in the thousands of governments in the 50 states. According to *PPPs and Municipal Home Rule,* a report by Allen & Overy, these investors can have more success by going to the markets or jurisdictions with the most favorable P3 policies and processes.

"The United States is geographically so vast, and politically so varied, that it can overwhelm the P3 investor with decisions about where to prospect for investments," notes *PPPs and Municipal Home Rule.* "In such a market, the risk of spiraling pursuit costs can be significant. It thus becomes critical to understand which jurisdictions are more likely than others to close a P3 transaction."

The 14-page report defines the best P3 markets as those states with municipalities that are likely to have their own legal authority to procure P3 projects, including those instances where there is no state law authorizing such a project, as well as those municipalities with adverse rating actions during fourth quarter 2008 because under these circumstance they may be more open to P3 transactions.

"Based on these legal and financial 'screens,' the study derives a list of 'jurisdictions of opportunity' — states whose localities may be most likely to enter into P3s," the report continues.

The report also highlights municipalities with meaningful "Municipal Home Rule" statutes "that provide cities broad legal authority to conduct their affairs without significant interference from state legislatures." There are 27 such states where municipalities can "control their own destiny" when negotiating a P3 deal.

According to *PPPs and Municipal Home Rule,* private investors searching for P3 opportunities would do well to focus on these jurisdictions. "P3 investors are under increasing business pressure to manage pursuit costs and avoid competitive tenders," the report notes. Investors can increase their chances of executing a P3 by focusing on home rule for several reasons:

- **Manageable Politics:** Generally, home rule municipalities can avoid complex and dilatory state approvals required elsewhere to close a transaction. In addition, the audience of decision makers at the municipal level is considerably smaller and easier to communicate with, and the dynamic of legislative bargaining in connection with a transaction is generally less complicated than on the state level.
- **Potentially Flexible Procurements:** Because some home rule municipalities may fashion their own rules for project procurement, P3 investors are more likely to have opportunities in such jurisdictions to propose transactions on an unsolicited basis and to participate in shaping the tender process.
- **Cost of Private Capital More Competitive:** Municipalities are expected to experience a structural increase in their cost of capital due to falling tax receipts and the "crowding out" of municipal debt by new federal borrowing — thereby increasing the competitiveness of alternative P3 financing on a cost-of-capital basis.

— *Drew Campbell*

States with Home Rule and Credit Downgrades in Q4/08

States with Broad Home Rule	States with Partial Home Rule
California	Florida
Louisiana	Illinois
Massachusetts	Indiana
North Dakota	Missouri
Ohio	Wisconsin
Oregon	—

Source: Allen & Overy, spring 2009

by Drew Campbell

Infrastructure Investors Go to Washington, D.C.

Annual Conference and Inaugural Board Meeting Convene in the Nation's Capital

Plan sponsors, investment advisers and government officials from Asia, the Middle East, Europe and North America gathered in Washington, D.C., Nov. 30–Dec. 3, 2009, for the fourth annual Institutional Investing in Infrastructure (I3) conference and the inaugural meeting of the Editorial Advisory Board meeting for the I3 newsletter (see "The Board Meets" on page 13).

The core audience at each of the I3 conferences (and now the board meeting) is plan sponsors — public and corporate pension plan administrators, and insurance plan administrators — and the advisers and consultants that help them invest. Infrastructure investment is new to many of these investors despite an active, but limited, private capital market that has been investing in infrastructure globally for decades.

EXPECTATIONS: THEN AND NOW

The pioneers of modern-day private infrastructure investment began in the United Kingdom, Europe, Canada and Australia, and in the early days, when the number of institutional players investing in infrastructure could be counted on a hand or two, the opportunities were wide open and competition was relatively slim, private equity investments and high-return targets were the norm. But if the discussions at the I3 conference and board meeting are an indication of what is to come for infrastructure investment, then times are changing. More investors are moving into the infrastructure space, and they are bringing with them competition for assets and new expectations for returns.

A refrain heard from many plan sponsors at the I3 conference and board meeting is a desire for an investment that can deliver stable cash flows with returns in a range between fixed income and public equities (see "Stimulating Infrastructure Investment in the United States, Part III" on page 12). The plan sponsors attending the two events primarily are U.S.-based, and when one considers that more baby boomers in the United States are reaching retirement age and are drawing pension benefits, it becomes clear why plan sponsors want infrastructure assets such as toll roads, electric transmission lines or water facilities in their portfolios — steady streams of fees paid by customers become current income for an investor that can be used to make pension payouts.

THE WAY FORWARD

So far, however, the execution of this strategy has been bumpy. According to I3 keynote speaker Brian Clarke, managing director with Macquarie Capital Advisors, one reason for this is that the municipal bond market is ingrained as the method of financing infrastructure, and it holds back private investment.

"The industry is married to the municipal bond model," Clarke told I3 attendees. "Everyone in the industry grew up with that model, and getting the participants to step away from that is a challenge."

The boom and bust cycle of the past five years also has given investors pause. Loose credit led to a frenzied and frothy market that went bust, and many firms previously in the sector have broken up or gone out of business, scattering employees across the industry. A plan sponsor looking to place millions or billions with a manager wants to be able to examine a firm's and investment team's track record to help it decide who is best suited to manage its money; however, many firms and teams in this industry are only months old, making the decision difficult and leading many plan sponsors to delay commitments until they can get a better sense of "the lay of the land."

I3 attendees also discussed the challenges of executing public-private partnerships (P3) in the United States. Most government officials lack experience structuring and managing infrastructure projects designed for private investment, and each state and local government has its own set of rules and regulations that investors must navigate, which. Contrast this to Canada or the United Kingdom, where the federal government has more power to enact processes that facilitate public-private infrastructure investment, and the process is more clear and streamlined and less time consuming and costly.

To be sure, governments and other organizations in the United States are acting to educate employees and put legislation in place that can facilitate more private activity in infrastructure projects, but the process is slow, and the added burden of one of the worst economic climates in decades — with shrinking tax bases and fewer employees to do the work — makes matters worse.

One such organization is the newly formed Council of Project Finance Advisors (CPFA), a Washington, D.C.–based working group that provides recommendations and advocates for a center of excellence for P3 in the United States. I3 participant and editorial board member McKenna Long & Aldridge sponsors CPFA, and it is co-chaired by Howard Dean, the former governor of Vermont and former leader of the Democratic National Committee, and Stephen Goldsmith, the former mayor of Indianapolis. Dean has deep relationships and experience with organized labor, and as mayor of Indianapolis Goldsmith oversaw one of the most prolific periods of P3 activity in a U.S. city.

CONNECTING WITH WASHINGTON, D.C.

With the I3 conference and editorial board meeting taking place in Washington, D.C., a number of government officials and consultants were able to lend their expertise to the events, including Congresswoman Rosa DeLauro, who represents Connecticut's third district. Rep. DeLauro delivered a lunchtime keynote address about the need for a U.S. infrastructure development bank. She asked private investors to be advocates for such a bank because it is in their interest and they have influence with the Obama administration.

Karen Hedlund, chief counsel to the Federal Highway Administration, meanwhile, discussed the Obama administration's plans for infrastructure spending and policy, and Steve Klein, who as a consultant is assisting the U.S. Department of Energy (DOE), spoke about the department's development of an expanded loan guarantee program designed to promote alternative energy while also providing economic stimulus. ❖

Drew Campbell is senior editor of ***Institutional Investing in Infrastructure.***

Stimulating Infrastructure Investment in the United States, Part III

I3 attendees participated in a peer-to-peer discussion about the merits of a conceptual model that uses federally credit-enhanced taxable revenue bonds for institutional investors to finance U.S. infrastructure projects. The concept was developed and presented to the conference by Robert Johnson, a consultant to Institutional Real Estate, Inc.

The presentation and group discussion was the concluding piece of a three-part "Food for Thought" report, Stimulating Infrastructure Investment in the United States. In part one, it was established that a preference for a more income-oriented, stable-value (core-like) infrastructure investment option has kept many institutional investors on the sidelines. The objective of the "Food for Thought" series is to promote thinking and discussion about how to compel these investors to take a more active role in financing infrastructure developments in the United States.

Part two went into more discussion about some political concerns that seem to be constraining a more broad acceptance of private equity models for infrastructure investing in the United States, and current investment trends involving pension funds investing in Build America Bonds. Part two also discussed some direct investing initiatives being undertaken by a few major funds and their consultants, which involve much lower fee structures.

Key Takeaways from the Peer-to-Peer Discussions

- I3 attendees welcomed action by the federal government that would foster infrastructure investment and development; however, most agreed those resources would be best used to encourage private capital through policy. For example, by insuring against a partner in a project that misses deadlines or other responsibilities and leaves other partners exposed to the consequences.

- Others suggested that perhaps instead of a fully staffed National Infrastructure Development Bank, Congress could help craft a more umbrella organization that provides policies, procedures and terms for each of the federal agencies to interface and partner with private capital providers to build America's infrastructure projects of the 21st century.

- While a consensus did not emerge about the prospects for a debt model having a formal role along equity for institutional investors to participate in infrastructure investments, it was clear that most attendees were intrigued with the prospect for a debt instrument helping to define a core investment strategy for infrastructure investing. This seemed more particularly true among plan sponsors in attendance.

- Federal support in the form of credit enhancements is best suited to smaller-scale projects such as a toll road where the investment time horizon is relatively short.

- If federal credit enhancements were intended to support a large-scale project such as a high-speed rail network, investors would require exits in stages. For example, a rail line could be built in stages between several legs, and investors could invest in one or more stages each with their own exit. ❖

The Board Meets

Institutional Real Estate, Inc. (IREI) hosted the inaugural Editorial Advisory Board meeting for the *Institutional Investing in Infrastructure* newsletter Dec. 3, 2009, following the conclusion of the Institutional Investing in Infrastructure (I3) conference Nov. 30–Dec. 2, 2009. The one-day meeting included a pre-event dinner at a local Washington, D.C., steakhouse where plan sponsors, placement agents, consultants and investment managers were on hand to get acquainted and discuss institutional investment in infrastructure. The following day the board resumed the discussion at the City Club of Washington.

Attendees of the inaugural I3 board meeting were Borealis Infrastructure Management, Brookfield Investment Management, California Public Employees' Retirement System, California State Teachers' Retirement System, Callan Associates, Campbell Lutyens, Capital Innovations, Dallas Police and Fire Pension System, First State Investments, Los Angeles County Employees Retirement Association, McKenna Long and Aldridge, Meketa Investment Group, Perseus Realty Partners, SteelRiver Infrastructure Partners, Teacher Retirement System of Texas, The Townsend Group, The World Bank, and Tier One Public Strategies.

The details of the meeting are for participants only, but it can be reported that the investors present are committed to infrastructure investment with several plans already having invested and others planning to launch manager searches or mandates in 2010. The meeting began with a brief summary by each plan sponsor of its program's goals, policy objectives and the issues that "keep them up at night." These summaries typically veer into discussions on hot topics where all board members are welcome to jump in and contribute, and it was encouraging to see the inaugural I3 board was not shy about speaking up.

After a morning of summaries and discussion, the issues on everyone's minds were fleshed out, and board members then got to select the two or three topics foremost on their minds, and the remainder of the discussion focused on these issues. At the conclusion of the meeting, participants left with a clear picture of what plan sponsors are aiming to accomplish with their infrastructure programs as well as what the industry's issues and problems are and how these might be solved. All of this was accomplished in face-to-face discussions around the table or at shared meals.

Another important feature of the board meeting is the IREI "Gong," which is banged from time to time if an investment manager slips into "marketing speak." The IREI board meetings are marketing-free zones, where the focus is on plan sponsors' issues and agendas, and are not meant to be platforms for managers to present their products.

IREI has been hosting Editorial Advisory Board meetings for institutional investors and their advisers for its real estate publications for more than 15 years. The information gained and relationships built during these meetings help investors and advisers manage the process of investing plan sponsor capital, which comes with fiduciary requirements unique to investments that fund pension benefits. The meeting also sets the editorial agenda for the newsletters in the coming year. The issues and ideas discussed and the suggestions made at the meeting provide guidance for the newsletter and supports reports and research projects — all of which supplies important information for the market.

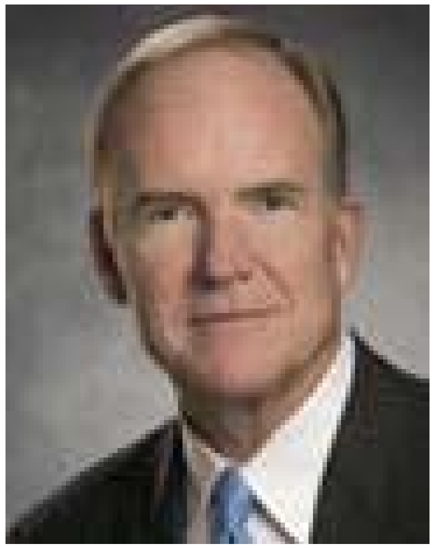
IREI holds board meetings for its institutional real estate publications in North America, Europe and Asia. The 2010 I3 board meeting is tentatively scheduled for fall 2010 in Washington, D.C. ❖

A Conversation with Stanton Hazelroth

***Stanton Hazelroth** is the first executive director of the California Infrastructure and Economic Development Bank (I-Bank), a financing entity housed within the California Business, Transportation and Housing Agency. In this capacity, Hazelroth manages and directs the Infrastructure Bank's day-to-day operations and affairs. He also serves as the I-Bank's principal advocate, providing outreach and representation to senior industry leaders and all levels of government. Under his direction, the I-Bank has achieved a $31 billion portfolio of financing infrastructure, economic development and other governmental needs.* Institutional Investing in Infrastructure *senior editor **Drew Campbell** spoke with Hazelroth about California's I-Bank.*

What is the mission of the California Infrastructure and Economic Development Bank?

The mission of the I-Bank, when the statute became law, was to assure economic revitalization, future development and a healthy climate for jobs in California. Vast majorities of both houses and the Governor found that fulfilling the mission would depend upon a well-conceived system of public improvements that are essential to the economic well-being of the citizens of the state. It is necessary for public policy to support the efforts of businesses attempting to expand, businesses seeking to locate in California, and local economic development organizations, public agencies and new entrepreneurs by dedicating public fiscal resources to confront obstacles and barriers that impede economic growth.



Stanton Hazelroth

2. When did the I-Bank first provide aid for infrastructure development?

In 1994, the I-Bank's initial legislation was passed almost unanimously by both parties and signed by a Republican governor. At the time, existing mechanisms that coordinate federal, state, local and private financial resources were deemed inadequate to attract and sustain the level of private investment that is essential to a growth economy.

The first several drafts of the I-Bank legislation introduced contemplated putting I-Bank "in state government" to give it the independence it would need as a powerful financing institution expected to react swiftly and change rapidly to meet the evolving needs in California. In final drafts, it was switched to within California Housing Finance Agency. The bill passed that way, and the I-Bank existed at CalHFA for a year or so. Then it was moved to the Technology, Trade and Commerce Agency, where its first big project was the Rate Reduction Bonds. In 1999–2000, I-Bank received its first (and only) appropriation, and that's when all the fundamental programs started moving full speed.

What types of projects does the I-Bank support? Roads, schools, etc.?

The I-Bank is the State of California's only general purpose financing authority and has extremely broad statutory powers to issue revenue bonds, make loans and provide credit enhancements. The I-Bank makes loans for highways, roads and public transit; parks and recreation; power and communications; sewage collection and treatment; and water treatment and distribution, just to name a few. The I-Bank is authorized to issue Industrial Development Bonds (IDBs), which are tax-exempt bonds issued by governmental entities to small to mid-size privately owned manufacturing and processing businesses; 501(c)(3) bonds, which are tax-exempt bonds issued by governmental entities to federally approved tax-exempt nonprofit corporations; and tax-exempt revenue bonds for governmental entities, including the I-Bank's ISRF Program.

What are some of the I-Banks notable projects?

In the ISRF Program, I-Bank has made loans to East Orange County Water District for construction of a new water well and replacement of approximately 2,100 linear feet of water pipeline; City of Lawndale for construction of a new park on vacant land in a residential neighborhood in the City of Lawndale; City of Newman for construction of a 39-acre treated wastewater storage basin at the city's existing wastewater treatment plant; and City of Davis for construction of a 4 million-gallon municipal water storage tank and an 8.6 million-gallon-per-day pump station, associated yard piping and water transmission main.

In the IDB program, some examples are IWorks U.S., Inc., manufacturing lighting fixtures; Betts Spring Co., building springs and truck parts; Applied Aerospace Structures Corporations, specialized aerospace components; and Alegacy Foodservice/Eagleware Manufacturing, a kitchenware manufacturer.

In the 501(c)(3) program, the I-Bank has issued bonds for Scripps Research Institute, Gladstone Institute, RAND Corp., Buck Center for Age Research, Asian Art Museum, San Francisco Ballet, California Academy of Sciences, Getty Museum, Salvation Army, Goodwill Industries of Orange County, YMCA, Society for the Prevention of Cruelty to Animals, the Academy of Motion Picture Arts and Sciences, and The Westmark School. Since 1999, the I-Bank has issued 85 501(c)(3) bonds totaling approximately $5.5 billion.

In the Governmental Entities Revenue Bond program, projects have included the I-Bank issuing $28 million of Energy Efficiency Bonds on behalf of the California Energy Commission, $1.1 billion of long-term fixed rate revenue Toll Bridge Seismic Retrofit Bonds for Caltrans, and $300 million of fixed-rate revenue bonds to provide additional funding for the Clean Water State Revolving Fund Program.

Who can apply for I-Bank funding?

In the ISRF direct loan program, any city, county, special district or joint powers authority; in the IDB program, any qualified California manufacturer or processer; in the nonprofit program, any qualified California 501(c)(3); and in the Governmental Bond Program, any governmental entity allowed by legislation.

What types of financing are available? Bonds, loans, credit facilities, etc.?

I-Bank is statutorily authorized to make all those mentioned available. I-Bank is only limited by the funds available to the ISRF program after leveraging and the appetites of the capital markets in the rest.

How can private capital partner with the I-Bank programs?

Private capital can purchase I-Bank's bonds or engage with the I-Bank in a public-private partnership, with the I-Bank filling the role of public partner and the private capital filling the role of private partner. There are dozens of permutations on the arrangement.

Do you anticipate a growing role for private capital in infrastructure investment, and does the I-Bank have plans to further encourage this?

Yes, as government entities become deeper in debt, there is an increasing need for alternative sources of cash.

What makes I-Bank support attractive to the participants? Interest rates, etc.?

In the ISRF Program, the interest rate is subsidized by I-Bank to two-thirds of an average A rated bond, and most of the bonds sold are tax-exempt, making them attractive to buyers needing tax-exempt investments in their portfolio. Currently, the federally sponsored BABs bonds are taxable, but with a larger rebate causing them to be less expensive than other taxable bonds.

How has the federal stimulus program affected the I-Bank's activities — are there federal programs that work in conjunction with I-Bank programs?

Yes, we have been working for months to organize a group of cities or counties to pool their allocations and sell their bonds in one bigger sale. There would be significant savings in fixed costs for each member of the pool, and the headache of each entity doing their own individual sale would be eliminated.

Do you see the potential for a national I-Bank?

Yes, I have been working with members of Congress, staff, interest groups and the like during the past year to design legislation that will be attractive to a majority. So many bills are out there that I see a lot of interest in.

Members of the U.S. Congress turned to the California I-Bank as a model for a national I-Bank.. What parts of the state model do they find attractive?

The overall concept. The California I-Bank, like many of the proposals for a national I-Bank, has a board of directors, a source of revenue, various bonding and enhancement capabilities, and an executive director and staff with expertise in financing. These elements are found in most of the major federal proposals. The history of the I-Bank is also positive — 10 years of full-service operation with only a $180 million appropriation and over $30 billion in project financing placed with eligible borrowers. The projects total a much larger number, the $30 billion is just the I-Bank contribution.

What could a national I-Bank do to develop and maintain infrastructure?

Most of the same things the state I-Bank has accomplished on a larger scale and for regional and national projects.

Could state I-Banks work in conjunction with a national I-Bank to leverage expertise, financing, etc., to facilitate a higher volume of projects?

This is why I have been so involved this past year. The template is there with a proven 10-year track record. With assistance from various financing entities from various states, the national I-Bank should have a much shorter ramp-up period during a time when trillions of dollars of infrastructure are needed now — $30 billion in 10 years, how about $30 trillion in five? ❖